Bruhat Bangalore Mahanagara Palike

Excecutive Engineer Project Division Yelahanka

Name of Work: Modified Estimation for Improvements of roads and drains at Kattigenahalli to Kogilu Main and Cross Road in Ward No.05 (Jakkur) Byatarayanapura Sub division

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Civil Work								
1	KSRRB 300-1. **Earthwork excavation by manual means for roads,** drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications(P.No-143 &136 ,I No-19.1&17.4& 17.1,KPWD SR 2018-19) 10km lead= 57+2.0x1.28x10 =82.60								
	CC Drain								
	BABA NAGAR								
	1st main road	2	354.10	1.10	1.10	856.92			
	2nd cross road	2	213.80	1.10	1.10	517.40			
	Vinayaka Nagar								
	Om shakthi temple road	1	80.10	1.10	1.10	96.92			
	Shivapura								
	1st main road	1	127.40	1.10	1.10	154.15			
	Shiva Temple Rd	2	239.70	1.00	1.10	533.14			
	Manjunatha Layout								
	main road	2	117.90	1.10	1.10	285.32			
	Cross Rd	2	91.50	1.10	1.10	221.43			
	Culvert	16	6.30	1.50	1.00	151.20			
						2816.48	**Cum**	**226.13**	**636891.02**
2	KSRRB M2100-10. Providing and laying **Plain cement concrete of mix 1:3:6** with OPC @ 220kgs, with crushed 40mm and down size graded granite metal coarse aggregates @0.89cum and fine aggregates @ 0.46cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days including cost of all materials, labour, HOM curing, form works, scaffolding and centering complete as per specifications. (P.No-222,I No-27.18,KPWD SR 2018-19)								
	CC Drain								
	BABA NAGAR								
	1st main road	2	354.10	1.10	0.15	116.85			
	2nd cross road	2	213.80	1.10	0.15	70.55			
	Vinayaka Nagar								
	Om shakthi temple road	1	80.10	1.10	0.15	13.22			
	Shivapura								
	1st main road	1	127.40	1.10	0.15	21.02			
	Shiva Temple Rd	2	239.70	1.00	0.15	72.70			
	Manjunatha Layout								
	main road	2	117.90	1.10	0.15	38.91			
	Cross Rd	2	91.50	1.10	0.15	30.20			
	Culvert	16	6.30	1.50	0.15	22.68			
						386.13	**Cum**	**5683.25**	**2194459.17**

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Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
3	KSRB 4.9.2 : Providing **T.M.T steel reinforcement** for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specifications. Specification. (I No-28.8.2,P No-229,KPWD SR 2018-19)								
	Consider 60Kg/Cum for drain	1	689.79	60.00		41856.39			
	Consider 90Kg/Cum for Culvert	1	53.32	90.00		4799.09			
						46655.48			
						46.66	**Tn**	**75796.05**	**3536301.21**
4	Providing and laying **plain/reinforced cement concrete** for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specificationsdo- Wall & bottom thickness 15cm (I No-37.59.2,P No-271,KPWD SR								
	CC Drain Raft								
	BABA NAGAR								
	1st main road	2	354.10	0.90	0.15	95.61			
	2nd cross road	2	213.80	0.90	0.15	57.73			
	Vinayaka Nagar								
	Om shakthi temple road	1	80.10	0.90	0.15	10.81			
	Shivapura								
	1st main road	1	127.40	0.90	0.15	17.20			
	Shiva Temple Rd	2	239.70	0.75	0.15	53.93			
	Manjunatha Layout								
	main road	2	117.90	0.90	0.15	31.83			
	Cross Rd	2	91.50	0.90	0.15	24.71			
	CC Drain Wall								
	BABA NAGAR								
	1st main road	4	354.10	0.15	0.60	127.48			
	2nd cross road	4	213.80	0.15	0.60	76.97			
	Vinayaka Nagar								
	Om shakthi temple road	2	80.10	0.15	0.55	13.58			
	Shivapura								
	1st main road	2	127.40	0.15	0.55	21.02		a	
	Shiva Temple Rd	4	239.70	0.15	0.60	86.29			
	Manjunatha Layout								
	main road	4	117.90	0.15	0.60	42.44			
	Cross Rd	4	91.50	0.15	0.55	30.20			
						689.79			
	Culvert Raft	16	6.30	1.20	0.23	27.82			
	Culvert Wall	32	6.30	0.23	0.55	25.50			
						53.32			
						743.11	**Cum**	**7414.62**	**5509894.21**
5	Providing and Fixing **pre cast covering Slab** made out of CC 1:2:4 with 10cm thick and Finishing cutting ,including form work,curing,including cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,copmplete. (Data Rate)								
	CC Drain Raft								

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Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	BABA NAGAR								
	1st main road	2	253.20	0.90		455.76			
	2nd cross road	2	189.30	0.90		340.74			
	Vinayaka Nagar								
	Om shakthi temple road	1	70.70	0.90		63.63			
	Shivapura								
	1st main road	1	119.40	0.90		107.46			
	Shiva Temple Rd	2	192.70	0.75		289.05			
	Manjunatha Layout								
	main road	2	113.20	0.90		203.76			
	Cross Rd	2	82.80	0.90		149.04			
						1609.44	**Sqm**	**2474.78**	**3983009.92**
6	Providing and Fixing pre cast **covering Slab 250mm thick** made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge. KPWD SR 2018-19								
	Culvert Raft	16	6.30	1.20		121.34			
						121.34	**Sqm**	**5725.95**	
					Upto 125%	**18.00**	**Sqm**	**5725.95**	**103067.10**
					Above 125%	**103.34**	**Sqm**	**5725.95**	**591742.58**
7	KSRRB M300-14. **Excavation for roadwork in all types of soil** by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specificatio MORTH Specification. No.301Loading and unloading with 10km lead= (I No-19.14,P No-143,KPWD SR 2018-19)								
	New formation								
	Vinayaka Nagar								
	5th main road	1	248.50	6.60	0.30	492.03			
	6th main road	1	229.90	6.30	0.30	434.51			
	6th B main road	1	107.20	5.10	0.30	164.02			
	BABA NAGAR								
	1st main 1st cross road	1	225.00	5.80	0.30	391.50			
	2nd cross	1	259.80	5.80	0.30	452.05			
	Cross Road 03	1	157.50	4.90	0.30	231.53			
	Cross Road 05	1	156.50	5.80	0.30	272.31			
	Kattigenahalli								
	3rd Cross Rd,OM Circle	1	161.90	5.40	0.30	262.28			
						2700.22	**Cum**	**43.67**	
					Upto 125%	**1114.30**	**Cum**	**43.67**	**48,661.48**
					Above 125%	**1585.92**	**Cum**	**43.67**	**69,257.21**
8	KSRRB 300-46. **Scarifying by mechanical means** stone metal crust 50mm to 100mm thick by along with 20mm premix carpet / surface dressing and stacking of old serviceable materials including cost of all labour charges, HOM complete as per specifications.(P.No-146,I No-19.52)								
	Scarifying roads								
	Vinayaka Nagar								
	2nd main Road	1	215.00	5.35		1150.25			
	4th Main Road	1	225.70	6.75		1523.48			
	Cross Road 02 From 3rd Main Rd to 5th Main Rd	1	102.90	5.25		540.23			

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Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	6th Cross Rd From SLV Residency	1	146.60	5.20		762.32			
						3976.27	**Sqm**	**42.70**	**169786.73**
9	KSRRB 300-58. **Compaction of original ground** by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications.(I No-19.64,P No-147,KPWD SR 2018-19)								
	New formation								
	Vinayaka Nagar								
	5th main road	1	248.50	6.60		1640.10			
	6th main road	1	229.90	6.30		1448.37			
	6th B main road	1	107.20	5.10		546.72			
	BABA NAGAR								
	1st main 1st cross road	1	225.00	5.80		1305.00			
	2nd cross	1	259.80	5.80		1506.84			
	Cross Road 03	1	157.50	4.90		771.75			
	Cross Road 05	1	156.50	5.80		907.70			
	Kattigenahalli								
	3rd Cross Rd,OM Circle	1	161.90	5.40		874.26			
						9000.74	**Sqm**	**6.79**	
					Upto 125%	**1531.00**	**Sqm**	**6.79**	**10,395.49**
					Above 125%	**7469.74**	**Sqm**	**6.79**	**50,719.53**
10	Construction of **granular sub-base Grading-V** as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications.(I No-20.5,P No-153,KPWD SR 2018-19)								
	New formation								
	Vinayaka Nagar								
	5th main road	1	248.50	6.60	0.15	246.02			
	6th main road	1	229.90	6.30	0.15	217.26			
	6th B main road	1	107.20	5.10	0.15	82.01			
	BABA NAGAR								
	1st main 1st cross road	1	225.00	5.80	0.15	195.75			
	2nd cross	1	259.80	5.80	0.15	226.13			
	Cross Road 03	1	157.50	4.90	0.15	115.76			
	Cross Road 05	1	156.50	5.80	0.15	136.16			
	Kattigenahalli								
	3rd Cross Rd,OM Circle	1	161.90	5.40	0.15	131.14			
	Scarifying roads								
	Vinayaka Nagar								
	2nd main Road	2	215.00	0.65	0.10	27.09			
						1377.31	**Cum**	**2091.43**	**2880537.00**
11	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to **wet mix macadam** specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications.(P.No-155,I No-20.18,KPWD SR 2018-19)								
	New formation								

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Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Vinayaka Nagar								
	5th main road	1	248.50	6.60	0.225	369.02			
	6th main road	1	229.90	6.30	0.225	325.88			
	6th B main road	1	107.20	5.10	0.225	123.01			
	BABA NAGAR								
	1st main 1st cross road	1	225.00	5.80	0.225	293.63			
	2nd cross	1	259.80	5.80	0.225	339.04			
	Cross Road 03	1	157.50	4.90	0.225	173.64			
	Cross Road 05	1	156.50	5.80	0.225	204.23			
	Kattigenahalli								
	3rd Cross Rd,OM Circle	1	161.90	5.40	0.225	196.71			
	Scarifying roads								
	Vinayaka Nagar								
	2nd main Road	1	215.00	5.35	0.225	258.81			
	4th Main Road	1	225.70	6.75	0.225	342.78			
	Cross Road 02 From 3rd Main Rd to 5th Main Rd	1	102.90	5.25	0.225	121.55			
	6th Cross Rd From SLV Residency	1	146.60	5.20	0.225	171.52			
						2919.83	**Cum**	**2098.22**	**6126439.93**
12	KSRRB M500-6. Providing and applying **primer coat** with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision(P.No-158,I No-21.6,KPWD SR 2018-19) Issue rate Dated -02-07-2020								
	New formation								
	Vinayaka Nagar								
	5th main road	1	248.50	6.60		1640.10			
	6th main road	1	229.90	6.30		1448.37			
	6th B main road	1	107.20	5.10		546.72			
	BABA NAGAR								
	1st main 1st cross road	1	225.00	5.80		1305.00			
	2nd cross	1	259.80	5.80		1506.84			
	Cross Road 03	1	157.50	4.90		771.75			
	Cross Road 05	1	156.50	5.80		907.70			
	Kattigenahalli								
	3rd Cross Rd,OM Circle	1	161.90	5.40		874.26			
	Scarifying roads								
	Vinayaka Nagar								
	2nd main Road	1	215.00	5.35		1150.25			
	4th Main Road	1	225.70	6.75		1523.48			
	Cross Road 02 From 3rd Main Rd to 5th Main Rd	1	102.90	5.25		540.23			
	6th Cross Rd From SLV Residency	1	146.60	5.20		762.32			
						12977.01	**Sqm**	**31.06**	**403065.93**
13	KSRRB 500-7. Providing and **applying tack coat** using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications (P.No-161,I No-21.7,KPWD SR 2018-19) Issue rate Dated -02-07-2020								

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Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	New formation								
	Vinayaka Nagar								
	5th main road	1	248.50	6.60		1640.10			
	6th main road	1	229.90	6.30		1448.37			
	6th B main road	1	107.20	5.10		546.72			
	BABA NAGAR								
	1st main 1st cross road	1	225.00	5.80		1305.00			
	2nd cross	1	259.80	5.80		1506.84			
	Cross Road 03	1	157.50	4.90		771.75			
	Cross Road 05	1	156.50	5.80		907.70			
	Kattigenahalli								
	3rd Cross Rd,OM Circle	1	161.90	5.40		874.26			
	Scarifying roads								
	Vinayaka Nagar								
	2nd main Road	1	215.00	5.35		1150.25			
	4th Main Road	1	225.70	6.75		1523.48			
	Cross Road 02 From 3rd Main Rd to 5th Main Rd	1	102.90	5.25		540.23			
	6th Cross Rd From SLV Residency	1	146.60	5.20		762.32			
						12977.01	**Sqm**	**13.59**	**176357.57**
14	KSRRB M500-17. Providing and laying **dense graded bituminous macadam** using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 505 of MORTH V revisionusing 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen (P.No-160,I No-21.17.6,KPWD SR 2018-19) Issue rate Dated -02-07-2020								
	New formation								
	Vinayaka Nagar								
	5th main road	1	248.50	6.60	0.05	82.01			
	6th main road	1	229.90	6.30	0.05	72.42			
	6th B main road	1	107.20	5.10	0.05	27.34			
	BABA NAGAR								
	1st main 1st cross road	1	225.00	5.80	0.05	65.25			
	2nd cross	1	259.80	5.80	0.05	75.34			
	Cross Road 03	1	157.50	4.90	0.05	38.59			
	Cross Road 05	1	156.50	5.80	0.05	45.39			
	Kattigenahalli								
	3rd Cross Rd,OM Circle	1	161.90	5.40	0.05	43.71			
	Scarifying roads								
	Vinayaka Nagar								
	2nd main Road	1	215.00	5.35	0.05	57.51			
	4th Main Road	1	225.70	6.75	0.05	76.17			
	Cross Road 02 From 3rd Main Rd to 5th Main Rd	1	102.90	5.25	0.05	27.01			
	6th Cross Rd From SLV Residency	1	146.60	5.20	0.05	38.12			
						648.85	**Cum**	**6726.24**	**4364324.19**

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Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
15	Providing and laying **bituminous concrete** 40mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. – do – using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminus binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic) (P.No-171,I No-21.78.12,KPWD SR 2018-19) Issue rate Dated -02-07-2020								
	New formation								
	Vinayaka Nagar								
	5th main road	1	248.50	6.60	0.04	65.60			
	6th main road	1	229.90	6.30	0.04	57.93			
	6th B main road	1	107.20	5.10	0.04	21.87			
	BABA NAGAR								
	1st main 1st cross road	1	225.00	5.80	0.04	52.20			
	2nd cross	1	259.80	5.80	0.04	60.27			
	Cross Road 03	1	157.50	4.90	0.04	30.87			
	Cross Road 05	1	156.50	5.80	0.04	36.31			
	Kattigenahalli								
	3rd Cross Rd,OM Circle	1	161.90	5.40	0.04	34.97			
	Scarifying roads								
	Vinayaka Nagar								
	2nd main Road	1	215.00	5.35	0.04	46.01			
	4th Main Road	1	225.70	6.75	0.04	60.94			
	Cross Road 02 From 3rd Main Rd to 5th Main Rd	1	102.90	5.25	0.04	21.61			
	6th Cross Rd From SLV Residency	1	146.60	5.20	0.04	30.49			
						519.08	**Cum**	**7921.80**	**4112051.11**
16	KSRRB M800-13.**Road Marking with Hot Applied Thermoplastic Compound** with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803(P.No-182,I No-24.15,KPWD SR 2018-19)								
	New formation								
	Vinayaka Nagar								
	5th main road	2	248.50	0.10		49.70			
	6th main road	2	229.90	0.10		45.98			
	6th B main road	2	107.20	0.10		21.44			
	BABA NAGAR								
	1st main 1st cross road	2	225.00	0.10		45.00			
	2nd cross	2	259.80	0.10		51.96			
	Cross Road 03	2	157.50	0.10		31.50			
	Cross Road 05	2	156.50	0.10		31.30			
	Kattigenahalli								
	3rd Cross Rd,OM Circle	2	161.90	0.10		32.38			
	Scarifying roads								
	Vinayaka Nagar								

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Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	2nd main Road	2	215.00	0.10		43.00			
	4th Main Road	2	225.70	0.10		45.14			
	Cross Road 02 From 3rd Main Rd to 5th Main Rd	2	102.90	0.10		20.58			
	6th Cross Rd From SLV Residency	2	146.60	0.10		29.32			
						447.30	Sqm	476.28	213040.04
								Total Construction Cost	35180001.42

Assistant Engineer
Ward No-05
BBMP Bangalore

Asst. Executive Engineer,
Project Division Yelahanka
BBMP Bangalore

Executive Engineer,
Project Division Yelahanka
BBMP Bangalore

Technical Sanction
Accorded For Rs 35180001.42
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